METHODS AND APPARATUS FOR OPERATING GAS TURBINE ENGINES

ABSTRACT OF THE DISCLOSURE

A method for operating a gas turbine engine including a first compressor, a second compressor, a combustor and a turbine, coupled together in serial flow arrangement. The method includes channeling compressed airflow discharged from the first compressor to a heat exchanger having an airstream flowing therethrough, channeling an evaporatively cooled airstream into the heat exchanger to facilitate reducing an operating temperature of the heat exchanger, and extracting energy from the compressed airflow using the heat exchanger airstream to facilitate reducing a temperature of the compressed airflow and channeling the compressed airflow from the heat exchanger to the second compressor